

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-20 (cancelled)

21. (new) An NRD guide transition comprising:

a dielectric waveguide which is sandwiched between parallel conductors and has a gap which is less than a  $1/2$  wavelength; a conductor rod which is adjacently arranged in substantially parallel with the dielectric waveguide; a microstrip line having a side surface opposite to the dielectric waveguide determined as a ground conductor with respect to the conductor rod; and

a coaxial line which pierces the conductor rod and a dielectric substrate of the microstrip line in a direction perpendicular to a longitudinal direction of the conductor rod and in parallel with the parallel conductors, and connects the dielectric waveguide with the microstrip line.

22. (new) An NRD guide transition comprising:

a first dielectric waveguide which is sandwiched between parallel conductor plates and has a gap which is less than a  $1/2$  wavelength;

a second dielectric waveguide which is cascade-arranged with respect to the first dielectric waveguide in a longitudinal direction with a desired gap therebetween; a

conductor rod adjacently arranged in substantially parallel with the first and second dielectric waveguides; a microstrip line having a side surface opposite to the first and second dielectric waveguides determined as a ground conductor with respect to the conductor rod;

a first coaxial line which pierces the conductor rod and a dielectric substrate of the microstrip line in the vicinity of one end portion of the conductor rod in a direction perpendicular to a longitudinal direction of the conductor rod and in parallel with the parallel conductor plates, and connects the first dielectric waveguide with the vicinity of one end portion of the microstrip line; and

a second coaxial line which pierces the conductor rod and a dielectric substrate of the microstrip line in the vicinity of the other end portion of the conductor rod in a direction perpendicular to a longitudinal direction of the conductor rod and in parallel with the parallel conductor plates, and connects the second dielectric waveguide with the vicinity of the other end portion of the microstrip line,

wherein the first dielectric waveguide, the microstrip line and the second dielectric waveguide are cascade-connected.

23. (new) An NRD guide transition comprising:

first and second dielectric waveguides each of which is sandwiched between parallel conductor plates and has a gap which is less than a  $1/2$  wavelength;

first and second conductor rods which are provided between the first and second dielectric waveguides and

arranged in substantially parallel with the first and second dielectric waveguides;

a microstrip line provided between the first and second conductor rods;

a first coaxial line which pierces the conductor rod in a direction perpendicular to a longitudinal direction of the first conductor rod and in parallel with the parallel conductor plates, and connects the first dielectric waveguide with one end of the microstrip line; and

a second coaxial line which pierces the conductor rod in a direction perpendicular to a longitudinal direction of the second conductor rod and in parallel with the parallel conductor plates, and connects the second dielectric waveguide with the other end of the microstrip line,

wherein the first dielectric waveguide, the microstrip line and the second dielectric waveguide are cascade-connected.

24. (new) The NRD guide transition according to claim 23, further comprising:

a first vertical strip line which connects one end of the first coaxial line connected with the first dielectric waveguide to the first dielectric waveguide; and

a second vertical strip line which connects one end of the second coaxial line connected with the second dielectric waveguide to the second dielectric waveguide.

25. (new) The NRD guide transition according to claim 21, wherein a lateral width of a contact surface of each of

the conductor rod, the first conductor rod and the second conductor rod with respect to each of the parallel conductor plates is a  $3/4$  wavelength, and a groove having a width of a  $1/4$  wavelength is provided at a central part of the contact surface in a longitudinal direction to form a choke structure.

26. (new) The NRD guide transition according to claim 21, wherein a liquid dielectric material is filled in an air gap formed between contact surfaces of a dielectric substrate of the microstrip line and a cylindrical dielectric material constituting the coaxial line and an air gap formed between contact surfaces of the dielectric substrate of the microstrip line and the conductor rod.

27. (new) The NRD guide transition according to claim 26, wherein the liquid dielectric material is a liquid dielectric material having dry curing properties.

28. (new) The NRD guide transition according to claim 27, wherein the liquid dielectric material having dry curing properties is enamel.

29. (new) The NRD guide transition according to claim 22, wherein a liquid dielectric material is filled in a gap formed between contact surfaces of a cylindrical dielectric material constituting the first coaxial line, a cylindrical dielectric material constituting the second coaxial line and the dielectric substrate of the microstrip line.

30. (new) The NRD guide transition according to claim 29, wherein the liquid dielectric material is a liquid dielectric material having dry curing properties.

31. (new) The NRD guide transition according to claim 30, wherein the liquid dielectric material having dry curing properties is enamel.

32. (new) The NRD guide transition according to claim 23, wherein a liquid dielectric material is filled in an air gap formed between contact surfaces of a cylindrical dielectric material constituting the first coaxial line, a cylindrical dielectric material constituting the second coaxial line and the dielectric substrate of the microstrip line.

33. (new) The NRD guide transition according to claim 32, wherein the liquid dielectric material is a liquid dielectric material having dry curing properties.

34. (new) The NRD guide transition according to claim 33, wherein the liquid dielectric material having dry curing properties is enamel.

35. (new) A small NRD guide bend, wherein a conductor is arranged to be appressed against a bent portion of a dielectric waveguide of an NRD guide, and a liquid dielectric material is filled in an air gap formed between contact surfaces of the dielectric waveguide and the conductor, the

dielectric waveguide being sandwiched between parallel conductor plates and having a gap which is less than a  $1/2$  wavelength, the NRD guide propagating an electromagnetic wave through the dielectric waveguide.

36. (new) A coupling structure of a dielectric material and a conductor according to claim 35, wherein the liquid dielectric material is a liquid dielectric material having dry curing properties.

37. (new) The NRD guide transition according to claim 22, wherein a lateral width of a contact surface of each of the conductor rod, the first conductor rod and the second conductor rod with respect to each of the parallel conductor plates is a  $3/4$  wavelength, and a groove having a width of a  $1/4$  wavelength is provided at a central part of the contact surface in a longitudinal direction to form a choke structure.

38. (new) The NRD guide transition according to claim 23, wherein a lateral width of a contact surface of each of the conductor rod, the first conductor rod and the second conductor rod with respect to each of the parallel conductor plates is a  $3/4$  wavelength, and a groove having a width of a  $1/4$  wavelength is provided at a central part of the contact surface in a longitudinal direction to form a choke structure.

39. (new) The NRD guide transition according to claim 24, wherein a lateral width of a contact surface of each of the conductor rod, the first conductor rod and the second

conductor rod with respect to each of the parallel conductor plates is a  $3/4$  wavelength, and a groove having a width of a  $1/4$  wavelength is provided at a central part of the contact surface in a longitudinal direction to form a choke structure.